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| 09/869,613 | 10/22/2001 | Jean Gasnault | GASNAULT =1 | 5761 |

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BROWDY AND NEIMARK, P.L.L.C.
624 NINTH STREET, NW
SUITE 300
WASHINGTON, DC 20001-5303

EXAMINER

NGUYEN, HIEP T

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2187

DATE MAILED: 08/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/869,613

Applicant(s)

GASNAULT ET AL.

Examiner

Hiep T Nguyen

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/22/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2187

DETAILED ACTION

1. This Office action is a response to the preliminary amendment filed October 22, 2001. Claims 1-8 are pending in the application.

Election/Restrictions

2. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-7, drawn to address multiplexing or address bus manipulation, classified in class 711, subclass 211.

Group II, claim 8, drawn to operator interfaces for a small display screen, classified in class 345, subclass 864.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the interfaces and/or their operating steps (in group II, claim 8) are carried out without depending on the bus multiplexing feature (in group I, claims 1-7). Similarly, the claimed bus-multiplexing device (in group I, claims 1-7) does not necessarily operate the same way as claimed in claim 8 (group II).

During a telephone conversation with Mr. Norman J. Latker on May 18, 2004 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-7. Affirmation of this election must be made by applicant in replying to this Office action. Claim 8 is withdrawn

Art Unit: 2187

from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Drawings

4. The drawings are objected to because the drawing elements are not labeled in English (figures 1-7). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "25" has been used to designate both 12C buses and eight-bit decoder components, as claimed in claim 5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the

Art Unit: 2187

sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

6. Claims 1 and 5 are objected to because of the following informalities:

- a. As per claim 1, line 2, either "the" or "said" in front of "device" should be deleted for clarity. In line 3, at the end of the line, either "the" or said" should be deleted. Appropriate correction is required.
- b. As per claim 5, line 5, "memories" should be replaced with –memory components—for consistency.

Claim Rejections - 35 USC § 112

7. Claims 5 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. As per claim 5, lines 6-7, it appears that the phrase "bus decoder component (26) adapted for transferring" should be replaced with –bus decoder component (26) adapted for selecting one of the buses 12C for transferring--. This is because, as best understood by the examiner, a bus decoder is for selecting a bus not for transferring data by itself. Appropriate correction or clarification is required.
- b. As per claim 7: line 2, it is unclear whether "ASCII format " is included or excluded as a further claimed limitation. Hereinafter, the claim is given its broadest reasonable

Art Unit: 2187

interpretation consistent with the supporting description. Accordingly, the scope of the further claimed limitation in claim 7, basically comprises "the textual information is stored in the form of text only"

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huffman, et al., WO 97/23819 [hereafter, Huffman] in view of well-known features of which Official notice is hereby taken.

a. As per claim 1:

- i. Huffman teaches a device (figure 1) for storage and searching of textual and graphical information in electronic form, the device comprising a case (100), a display means (130, 132; figure 2), a user interface means (130, 132; this is because the touch screen 130 and 132 act as a display means as well as a user interface means; see also page 10, lines 33-38), an operating means (152, figure 3), a means for storage of the information (136, figure 2), means (touch screens 130, 132 in communication with processor 152) for selecting information to be displayed according to the user's instructions [page 10, lines 33-35].
- ii. Huffman, however, does not teach that his device has a multiplexed address bus.
- iii. Multiplexed address bus has been known and widely used in the pertinent art even before the invention was made. As well-known, the main advantage of

Art Unit: 2187

using multiplexed address bus is to relatively reduce the number of pins to be used in addressing a memory device [see U.S. Patent No. 5,835,965; col. 2, lines 33-36].

- iv. One having ordinary skill in the art at the time the invention was made, who is familiar with the well-known address bus multiplexing feature, looks at the teaching of Huffman, would lead he or she to further employ a multiplexed address bus into the Huffman device so as to reduce the number of pins in addressing a memory device. Consequently, to reduce the size of the device to make the device more compactness, which is desirable in every handheld device such as that of Huffman.
- v. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further employ a multiplexed address bus in the Huffman device. The ability to reduce the number of pin count used in addressing memory device provides sufficient suggestion and motivation to one having ordinary skill in the art at the time the invention was made to do such further multiplexed address bus employment.

b. As per claims 2-3:

- i. Similarly to claim 1, eight-bit processor combined with an IPP (intelligent Programmable peripheral) or a type 12C bus has been known and widely used in the pertinent art. As well-known, the eight-bit processor or 12C bus type is old and relatively inexpensive. Accordingly, it would have been obvious to one having ordinary skill in the art, desiring a relatively inexpensive device, to employ an eight-bit processor and a 12C bus type the place of Huffman processor 152 and the bus connecting the processor to a memory device such as the Huffman memory 136. The ability to relatively reduce the system cost provides sufficient suggestion and motivation to one having ordinary skill in the art at the time the

invention was made to do such processor and bus employment in the Huffman device.

- c. As per claim 4: the Huffman storage means (136) is a memory card that can be removed from the case [see figure 2, page 9, lines 2-5].
- d. As per claim 5: similarly to claims 2-3, using a memory component for storing Identification and personalization of a memory card such as that of Huffman memory card has been known and commonly practice in the pertinent art. Furthermore, employing a plurality of buses for transferring data between a memory card such as that o Huffman and a connecting device such as a processing unit has also been known in the pertinent art. Obviously, when two or more buses are employed, data can be transferred in parallel between the memory card and the connecting device; or the buses can be used as redundant buses for reliability purposes, such as when one bus is down another bus can take over the workload. Moreover, when a plurality of memory components and buses are employed in a memory card the associated address and bus decoders for addressing and/or selecting the appropriate memory component and bus, respectively, are necessary. Accordingly, it would have been obvious to one having ordinary skill in the art a the time the invention was made to employ:
 - i. a plurality of buses for transferring data between the card and a connecting device, and
 - ii. a plurality of memory components for storing textual and graphical information and a memory component for storing identification and personalization of the memory card, if such feature is not already inherent in the Huffman device
- e. As per claim 6: an electronic book such as that of Huffman having a printer port has also been known and commonly practiced in the pertinent art. It would have been obvious to one having ordinary skill in the art to employ a printer port in the Huffman device so as to allow the stored data to be output to a printer [if such feature is not already inherent in the Huffman system through the Huffman data interface 156].

Art Unit: 2187

- f. As per claim 7: Huffman's textual information is stored in the form of text only [page 8, lines 8-10].

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Huffman et al., U.S. Patent no. 5,661,635, see figures 1-3.
- b. Lebby t al., U.S. patent no. 5,534,888, see figures 1-5.
- c. Yamajaki et al., U.S. patent No. 5,339,091, see figures 1-3.
- d. Quentin et al., U.S. Patent no. 5,208,745, see figure 1.
- e. Tsuchiya, U.S. Patent No. 5,239,665, see figure 1.
- f. Hirayama, U.S. Patent no. 5,199,104, see figure 1.
- g. Washizuka, U.S. Patent no. 4,639,225, see figure 1.
- h. Huffman et al., U.S. Patent No. 5,887,118, see figures 2 and 3.
- i. Greer, U.S. Patent no. 4,899,306, teaches a microprocessor with a multiplexed address bus.
- j. Tracy, U.S. Patent no. 6,014,040, teaches a 12C bus system as a bi-directional signal transmission system.
- k. Yoshida et al., U.S. Patent No. 6,690,417 teaches an image processing system having a 12C bus type for data communication.
- l. Hyman et al., U.S. Patent No. 6,155,838 teaches an amusement device employing an eight-bit processor.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hiep T Nguyen whose telephone number is (703) 305-3822. The examiner can normally be reached on Monday-Friday from 9:30 a.m. to 6:00 p.m.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (703) 308-1756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2187

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Hiep T Nguyen
Primary Examiner
Art Unit 2187

HTN